ARMY ORDNANCE

Index to Volume V

No. 25 (July-August, 1924) to No. 30 (May-June, 1925) Inclusive

SUBJECT INDEX

Aberdeen Camp, The 493
Aberdeen Proving Ground, American Chemical Society Witnesses Demonstration at 792
Accompanying Gun, The British Infantry 533
Accuracy Firing 521
"Accuracy Firing," by Philip Schwartz in ARMY ORDNANCE, Sept.-Oct., 1924, Discussion of Article on 613
Action of Diphenylamine in Smokeless Powder 674
Activities of New York Post, Army Ordnance Association 734
Additional Tests Needed to Determine Value of Various Steels (Symposium on Gun Barrel Erosion) 799
Adequate Stocks and Renewed Interest Needed (Discussion of "Optical Glass and Fire Control Instruments") 593
Advisory Board, The Chicago Ordnance District 499
Advisory Board, The New York Ordnance District 649
Aerial Survey of Philadelphia Ordnance District, Industrialists Make 806
Aiming Mirrors 534
Air Clarifiers 737
Aircraft Float Lights 666
Aircraft Ordnance 667
Air Mail Service, Use of Pyrotechnics by 612
Airplane Catapult 666
Air Service and Antiaircraft Exercises at Langley Field and Fort Monroe, March 6, 1925 757
Aluminum Fuze Seat Liners, Electrochemical Corrosion of 471
Airways Parachute Flare 467
Amatol, Exudation from TNT and 611
American Chemical Society to be Guests of Army Ordnance 712
American Chemical Society Witnesses Demonstration at Aberdeen Proving Ground 792
American Legion, General Drain Heads 578
American Railway Artillery 835
American Society of Mechanical Engineers, Cleveland Meetings of Ordnance District Chiefs and 436
America's Oldest Munitions Plant 603
Ammonium Nitrate, The Influence of Temperature on the Explosibility of 599
Ammunition 569
Ammunition, Charpy Test of Armor-Piercing 535
Ammunition Depots, Naval 669
Ammunition Division Notes 467, 611, 756, 834
Ammunition, Erosion Test of National Match Types of 615
Ammunition, Tracer 536
Ammunition Train, Fort Sill, The Third 823
Ammunition Wins National Match Tests, Frankford Arsenal 817
Annual Meeting, A. O. A., Chemistry of Ordnance Displayed at the Sixth 557
Annual Meeting of the Army Ordnance Association, The Sixth 487
Annual Meeting of Raritan Arsenal Association 742
Annual Report of the Chief of Ordnance, Part I 661
Annual Report of the Chief of Ordnance, Part II 729
Antiaircraft Artillery 568
Antiaircraft Exercises at Langley Field and Fort Monroe, March 6, 1925, Air Service and 757
Antiaircraft Gun Mount, Model 1920 E, Mechanical Loader for 4.7-inch 469
Antiaircraft Gun Mount, Model 1923 E, 3-inch 468
Application of Recuperator Mechanisms to Field Gun Carriages 427
Armor (Naval Ordnance) 668
Armor-Piercing Ammunition, Charpy Test of 535
Army Artillery 567
Army Industrial College Graduates 462
Army Industrial College, Important Role of The 514
Army Industrial College, Secretary of War Emphasizes Importance of 701
Army in War, Limiting Factors of Our 491
Army Ordnance Association, Activities of New York Post 734
Army Ordnance Association, The Military Medal of the 728
Army Ordnance Association, New Constitution and By-Laws of the 526
Army Ordnance Association, The Sixth Annual Meeting of the 487
Army Ordnance at the University of California 597
Army Ordnance Trophy for National Matches (Editorial) 826
Arsenal, Floor Inspection of Artillery at Rock Island 655
Arsenal, Rock Island 631
Arsenal, The 33rd Ordnance Company, Rock Island 658
Artilleries, Modern Developments in Field Army 537
Artillery, American Railway 835
Artillery, Antiaircraft 568
Artillery, Army 567
Artillery at Rock Island Arsenal, Floor Inspection of 655
Artillery, Corps 567
Artillery, Divisional 566
Artillery Division Notes 468, 533, 612, 672, 757, 835
Artillery Matériel (Wheeled) Divisional 672
Artillery Matériel (Wheeled), Status of Medium 612
Artillery, Mobile 566
Artillery, Railway 569
Artillery, Seacoast 569
Artillery (Wheeled), Status of Heavy Mobile 758
Asiatic Expedition, Winchester Model 95 With 837
Automatic Gun, Browning 37-mm. 422

ARMY ORDNANCE

Index to Volume V

No. 25 (July-August, 1924) to No. 30 (May-June, 1925) Inclusive

SUBJECT INDEX

Aberdeen Camp, The 493
Aberdeen Proving Ground, American Chemical Society Witnesses Demonstration at 792
Accompanying Gun, The British Infantry 533
Accuracy Firing 521
"Accuracy Firing," by Philip Schwartz in ARMY ORDNANCE, Sept.-Oct., 1924, Discussion of Article on 613
Action of Diphenylamine in Smokeless Powder 674
Activities of New York Post, Army Ordnance Association 734
Additional Tests Needed to Determine Value of Various Steels (Symposium on Gun Barrel Erosion) 799
Adequate Stocks and Renewed Interest Needed (Discussion of "Optical Glass and Fire Control Instruments") 593
Advisory Board, The Chicago Ordnance District 499
Advisory Board, The New York Ordnance District 649
Aerial Survey of Philadelphia Ordnance District, Industrialists Make 806
Aiming Mirrors 534
Air Clarifiers 737
Aircraft Float Lights 666
Aircraft Ordnance 667
Air Mail Service, Use of Pyrotechnics by 612
Airplane Catapult 666
Air Service and Antiaircraft Exercises at Langley Field and Fort Monroe, March 6, 1925 757
Aluminum Fuze Seat Liners, Electrochemical Corrosion of 471
Airways Parachute Flare 467
Amatol, Exudation from TNT and 611
American Chemical Society to be Guests of Army Ordnance 712
American Chemical Society Witnesses Demonstration at Aberdeen Proving Ground 792
American Legion, General Drain Heads 578
American Railway Artillery 835
American Society of Mechanical Engineers, Cleveland Meetings of Ordnance District Chiefs and 436
America's Oldest Munitions Plant 603
Ammonium Nitrate, The Influence of Temperature on the Explosibility of 599
Ammunition 569
Ammunition, Charpy Test of Armor-Piercing 535
Ammunition Depots, Naval 669
Ammunition Division Notes 467, 611, 756, 834
Ammunition, Erosion Test of National Match Types of 615
Ammunition, Tracer 536
Ammunition Train, Fort Sill, The Third 823
Ammunition Wins National Match Tests, Frankford Arsenal 817
Annual Meeting, A. O. A., Chemistry of Ordnance Displayed at the Sixth 557
Annual Meeting of the Army Ordnance Association, The Sixth 487
Annual Meeting of Raritan Arsenal Association 742
Annual Report of the Chief of Ordnance, Part I 661
Annual Report of the Chief of Ordnance, Part II 729
Antiaircraft Artillery 568
Antiaircraft Exercises at Langley Field and Fort Monroe, March 6, 1925, Air Service and 757
Antiaircraft Gun Mount, Model 1920 E, Mechanical Loader for 4.7-inch 469
Antiaircraft Gun Mount, Model 1923 E, 3-inch 468
Application of Recuperator Mechanisms to Field Gun Carriages 427
Armor (Naval Ordnance) 668
Armor-Piercing Ammunition, Charpy Test of 535
Army Artillery 567
Army Industrial College Graduates 462
Army Industrial College, Important Role of The 514
Army Industrial College, Secretary of War Emphasizes Importance of 701
Army in War, Limiting Factors of Our 491
Army Ordnance Association, Activities of New York Post 734
Army Ordnance Association, The Military Medal of the 728
Army Ordnance Association, New Constitution and By-Laws of the 526
Army Ordnance Association, The Sixth Annual Meeting of the 487
Army Ordnance at the University of California 597
Army Ordnance Trophy for National Matches (Editorial) 826
Arsenal, Floor Inspection of Artillery at Rock Island 655
Arsenal, Rock Island 631
Arsenal, The 33rd Ordnance Company, Rock Island 658
Artilleries, Modern Developments in Field Army 537
Artillery, American Railway 835
Artillery, Antiaircraft 568
Artillery, Army 567
Artillery at Rock Island Arsenal, Floor Inspection of 655
Artillery, Corps 567
Artillery, Divisional 566
Artillery Division Notes 468, 533, 612, 672, 757, 835
Artillery Matériel (Wheeled) Divisional 672
Artillery Matériel (Wheeled), Status of Medium 612
Artillery, Mobile 566
Artillery, Railway 569
Artillery, Seacoast 569
Artillery (Wheeled), Status of Heavy Mobile 758
Asiatic Expedition, Winchester Model 95 With 837
Automatic Gun, Browning 37-mm. 422

Barrels, Electroplating Worn Machine Gun 503
Battle Towing Targets 667
Bethlehem Steel and Defense Day (Editorial) 532
Boat-tailed Bullet 586
Bolles, Lieut. Col. Frank Granger (Obituary) 684
Bombing 570
Bombing the U. S. S. Washington 756
Book Reviews 475, 547, 619, 678, 765, 841
Bridgeport Ordnance District Notes 763
British Infantry Accompanying Gun, The 533
Broadside Gun Mounts 667
Browning 37-mm. Automatic Gun 422
Bullet, Boat-tailed 586
Bullets in Flight, Photography of 536
Butterworth, William (Biographical Sketch) 499
By-Laws of the A. O. A., New Constitution and 526
California, Army Ordnance at the University of 597
California Post, A. O. A., and San Francisco District War Game, Spring Meeting 782
California Post, A. O. A., Elects Officers 430
Camera Obscura 467
Carburization as a Factor in the Erosion of Machine Gun Barrels 794
Carriages, Application of Recuperator Mechanisms to Field Gun 427
Carriage, Mk. X, The 4.7-inch Gun Motor 533
Cartridge Cloth, Deterioration of 617
Cast Iron in Ordnance, The Role of Malleable 735
Catapult, Airplane 666
Caterpillar Tractor Company 840
"Caterpillar" Tractor, New 5-Ton 673
Cause of the White Layer, The (Symposium on Gun Barrel Erosion) 798
Charges for 16-Inch Gun, Mod. 1919 and 16-Inch Howitzer, Mod. 1920, Dummy 467
Charpy Test of Armor-Piercing Ammunition 535
Chemical Industry, The Dye and Synthetic Organic 542
Chemical Warfare Service Association Formed, U. S. 586
Chemistry in War: An 18th Century Viewpoint 783
Chemistry of Ordnance Displayed at the Sixth Annual Meeting, A. O. A. at Aberdeen 557
Chemists to Discuss Corrosion 598
Chicago Ordnance District Advisory Board, The 499
Chief of Ordnance, Part I, Annual Report of the 661
Chief of Ordnance, Part II, Annual Report of the 729
Citizens' Military Training Camps, 1925 (Editorial) 745
Clarifiers, Air 737
Cleveland Meetings of Ordnance District Chiefs and American Society of Mechanical Engineers 436
Cleveland Meetings of Ordnance District Chiefs and A. S. M. E. (Editorial) 417
Cloth, Deterioration of Cartridge 617
Cold-Worked Steel, Crystal Deformation in 455
Coleman, William Wheeler (Biographical Sketch) 499
Colt .45 Pistol, The Improved 470
Comptroller General vs. The Courts 454
Concerning the Nature of Detonation 515
Constitution and By-Laws of the A. O. A., New 526
Constitution, The Proposed New (Editorial) 417
Construction, The Elements of Firing Table 446
Contracts, War 438
Control, Ordnance Stores 431
Cornwall, Col. Bruce, Elected Director of A. O. A. (Editorial) 744
Corps Artillery 567
Corps Tractor, The New 443
Correspondence Courses (Reserve Officers) 746
Corrosion, Chemists to Discuss 598
Corrosion of Aluminum Fuze Seat Liners, Electrochemical 471
Courts, The Comptroller General vs. The 454
Crossings, 1924 Steel 675
Crowley, Patrick E. (Biographical Sketch) 650
Crystal Deformation in Cold-Worked Steel 455
Current Ordnance Development at Rock Island Arsenal 825
Davies, Clarence E. (Biographical Sketch) 654
Dawes, Gen. Charles Gates (Biographical Sketch) 499
Defense Day Meeting, N. Y. District 573
Defense Day, 1924, in the Ordnance Districts 571
Defense Day, The Significance of National 489
Defense Day Test Indorsed 577
Defense Test, Industry Starts 490
Deformation in Cold Worked Steel, Crystal 455
Demonstration at Aberdeen Proving Ground, American Chemical Society Witnesses 792
Demonstrations, Ordnance 579
Design Section at Rock Island, The 637
Deterioration of Cartridge Cloth 617
Detonation, Concerning the Nature of 515
Detonation, Silver Azide: An Initiator of 824
Develop Muscle Shoals, The Offers to 419
Development of Tripods 614
Development of Weapons, Origin and 459
Developments in Field Army Artilleries, Modern 537
Developments, Test of New 585
Development Work and Manufacture of New Matériel, Experimental and 663
Diphenylamine in Smokeless Powder, Action of 674
Director of Civilian Marksmanship, The 784
Discussion of Article on "Accuracy Firing," by Philip Schwartz, in ARMY ORDNANCE, Sept.-Oct., 1924 613
District Advisory Board, The Chicago Ordnance 499
District Chiefs Discuss Procurement Plans, Ordnance 563
District Defense Day Meeting, N. Y. 573
Districts, Defense Day, 1924, in the Ordnance 571
Divisional Artillery 566
Divisional Artillery Matériel (Wheeled) 672
Downey, John Irving (Biographical Sketch) 650
Drain Heads American Legion, General 578
Drop Blocks and Side Sliding Blocks, Extractors for Guns Having 677
Dummy Charges for 16-inch Gun, Mod. 1919 and 16-inch Howitzer, Mod. 1920 467
Dye and Synthetic Organic Chemical Industry, The 542
Editorials 417, 531, 605, 670, 744, 826
Army Ordnance Trophy for National Matches 826
Bethlehem Steel and Defense Day 532
Citizens' Military Training Camps, 1925 745
Cleveland Meetings of Ordnance District Chiefs and A. S. M. E., The 417
Cornwall, Col. Bruce, Elected Director of A. O. A. 744
Frankford Ammunition Wins 826
General Tripp on Industrial Defense 531
Index to Army Ordnance, Volume I 745
Industrial Preparedness 417
Newly-Elected Officers of A. O. A. 671
New National Headquarters (A. O. A.) 605
Ordnance Progress—1924 670

Editorials—Continued
Ordnance Reserve Officer Training, 1925 ... 826
Proposed New Constitution, The ... 417
Rock Island Arsenal ... 670
Sixth Annual Meeting, The ... 417, 531, 605
Support the National Guard ... 744
Vital Subject, A. ... 605
Electrochemical Corrosion of Aluminum Fuze Seat Liners ... 471
Electroplating Worn Machine Gun Barrels ... 503
Elects Officers, California Post, A. O. A ... 430
Elements of Firing Table Construction, The ... 446
Elimination of Use of Loose Black Powder by the Using Services ... 467
Equipment at Rock Island Arsenal, Manufacture of ... 647
Equipment (National Guard), Supply and ... 709
Erosion of Machine Gun Barrels (Symposium on Gun Barrel Erosion) ... 799
Erosion of Machine Gun Barrels, Carburization as a Factor in the ... 794
Erosion, Old and New Theories in Gun (Symposium on Gun Barrel Erosion) ... 801
Erosion Test of National Match Types of Ammunition 615
Erosion, The Nitrogen Theory of (Symposium on Gun Barrel Erosion) ... 800
Erskine, Albert Russell (Biographical Sketch) ... 502
Experimental and Development Work and Manufacture of New Matériel ... 663
Explosibility of Ammonium Nitrate, The Influence of Temperature on the ... 599
Explosive, H. M. T. D.—A New Detonating ... 463
Explosives for Hand Grenades ... 467
Explosives in the World War, German High ... 523
Extensive Salvage Operations of Ordnance Department at Fort Sill ... 727
Extractors for Guns Having Drop Blocks and Side Sliding Blocks ... 677
Exudation from TNT and Amatol ... 611
Factors of Our Army in War, Limiting ... 491
Field Army Artilleries, Modern Developments in ... 537
Field Gun Carriages, Application of Recuperator Mechanisms to ... 427
Fire Control ... 668
Fire Control Instruments, The Standardization of Optical ... 512
Fire Control Instruments, Standards in ... 596
Fire Control Instruments, A Symposium on Optical Glass and ... 593
Firing, Accuracy ... 521
Firing Table Construction, The Elements of ... 446
Flare, Airways Parachute ... 467
Floor Inspection of Artillery at Rock Island Arsenal ... 655
Fort Sill, The Third Ammunition Train ... 823
Fragmentation Test, The ... 760
Frankford Ammunition Wins (Editorial) ... 826
Frankford Arsenal Ammunition Wins National Match Tests ... 817
Friedsam, Michael (Biographical Sketch) ... 651
Future Value of Shrapnel, The ... 525
Fuze Seat Liners, Electrochemical Corrosion of Aluminum ... 471
Fuzes, Powder Time ... 467
Fuzes, Prematures With Mk. IV and V Point Detonating ... 529
Gary, Hon. Elbert H. (Biographical Sketch) ... 650
Gelshenen, Major William H. (Obituary) ... 498
Genealogy of the New England Gun Makers ... 505
General Drain Heads American Legion ... 578
General Specifications as a Track-laying Vehicle (New Corps Tractor) ... 445
General Tripp on Industrial Defense (Editorial) ... 531
German High Explosives in the World War ... 523
German Long Range Gun ... 569
German Ordnance, Summary of the Investigation of Steels Used in ... 468
Germans, Use of Zinc Rotating Bands by the ... 536
Gilbert, S. Parker (Biographical Sketch) ... 651
Gillette, G. M. (Biographical Sketch) ... 502
Graduates, Army Industrial College ... 462
Gravity Method of Shot Manufacture and Shot Towers Still in Use (Letter to the Editor) ... 764
Grenades, Explosives for Hand ... 467
Gun Barrels, Electroplating Worn Machine ... 503
Gun, The British Infantry Accompanying ... 533
Gun, Browning 37-mm. Automatic ... 422
Gun Elevation, Repeal of Appropriation for ... 666
Gun Erosion, Old and New Theories in (Symposium on Gun Barrel Erosion) ... 801
Gun Factory, Naval ... 668
Gun, German Long Range ... 569
Gun Makers, Genealogy of the New England ... 505
Gun Motor Carriage, Mk. X, The 4.7-inch ... 533
Gun Mount, Model 1920 E, Mechanical Loader for 4.7-inch Antiaircraft ... 469
Gun Mount, Model 1923 E, 3-inch Antiaircraft ... 468
Gun Mounts, Broadside ... 667
Gun, New Navy 5-inch ... 835
Gun Railway Mount, Model 1920, Test of 14-inch ... 533
Guns Guard Metropolis, New 16-inch ... 587
Guns Having Drop Blocks and Side Sliding Blocks, Extractors for ... 677
Gun, 16-inch Mod. 1919 and 16-inch Howitzer, Mod. 1920, Dummy Charges for ... 467
Guns (Navy) ... 667
Guns, Relining 14-inch ... 472
Guns, Small Arms and Machine ... 667
Gun, Stockett Line-Throwing ... 673
Gun, Model 1925 E, 37-mm. ... 762
Gun With a Loose Liner, A 3-inch 15-Pdr. ... 675
Hand Grenades, Explosives for ... 467
Harbord, James G. (Biographical Sketch) ... 652
Headquarters, New National (Editorial) ... 605
Heat of Smokeless Powder, The ... 618
Heavy Mobile Artillery (Wheeled), Status of ... 758
High Explosive Shell, Methods Used by the Germans in Loading ... 838
High Explosives in the World War, German ... 523
H. M. T. D.—A New Detonating Explosive ... 463
Howell, Herbert P. (Biographical Sketch) ... 652
Howitzer, 16-inch Mod. 1920, Dummy Charges for 16-inch Gun, Mod. 1919 and ... 467
Hunter, Major John Herbert (Obituary) ... 743
Important Role of The Army Industrial College ... 514
Improved Colt .45 Pistol, The ... 470
Improved Quality Steel Production ... 785
Index to ARMY ORDNANCE, Volume I (Editorial) ... 745
Industrial College Graduates, Army ... 462
Industrial College, Important Role of The Army ... 514

Industrial College, Secretary of War Emphasizes Importance of Army ... 701
Industralists Make Aerial Survey of Philadelphia Ordnance District ... 806
Industrial Preparedness (Editorial) ... 417
Industrial Preparedness Before New York Post, A. O. A., General Summerall Urges ... 773
Industrial War Planning ... 662
Industry, The Dye and Synthetic Organic Chemical ... 542
Industry Starts Defense Test ... 490
Infantry Accompanying Gun, The British ... 533
Infantry and Aircraft Armament Division Notes, 470, 535, 613
Influence of Temperature on the Explosibility of Ammonium Nitrate ... 599
Inspection of Artillery at Rock Island Arsenal, Floor 655
Inspection of Steel, The Mill ... 775
Instruction of Student Officers in Repetitive Manufacture ... 761
Instruments, The Standardization of Optical Fire Control ... 512
Instruments, Standards in Fire Control ... 596
Instruments, A Symposium on Optical Glass and Fire Control ... 593
Investigation of Steels Used in German Ordnance, Summary of the ... 468
Italian Tanks ... 789
Lamont, Col. R. P. (Biographical Sketch) ... 502
Lectures for New York District Ordnance Reserve Officers ... 610
Legge, Alexander (Biographical Sketch) ... 502
Letters to the Editor ... 764
Limiting Factors of Our Army in War ... 491
Liner, A 3-inch 15 Pdr. Gun With a Loose ... 675
Liners, Electrochemical Corrosion of Aluminum Fuze Seat ... 471
Line-Throwing Gun, Stockett ... 673
Loader for 4.7-inch Antiaircraft Gun Mount, Model 1920 E, Mechanical ... 469
Machine Gun Barrels, Carburization as a Factor in the Erosion of ... 794
Machine Gun Barrels, Electroplating Worn ... 503
Machine Gun Barrels, Erosion of (Symposium on Gun Barrel Erosion) ... 799
Machine Guns, Small Arms and ... 667
Machinery (Naval Ordnance) ... 667
Maisch to Teach Tactics, Major ... 474
Malleable Cast Iron in Ordnance, The Role of ... 735
Manufacture, Instruction of Student Officers in Repetitive ... 761
Manufacture of Equipment at Rock Island Arsenal ... 647
Manufacture of New Matériel, Experimental and Development Work and ... 663
Manufacture of the Bolt of the Springfield Rifle ... 719
Manufacturing Requirements, Part II, Modern Small Arms and Their ... 807
Marksmanship, The Director of Civilian ... 784
Match, 1924, The National Rifle Team ... 591
Matches, Ordnance at the National ... 584
McRoberts, Samuel (Biographical Sketch) ... 652
Mechanical Loader for 4.7-inch Antiaircraft Gun Mount, Model 1920 E ... 469
Medal of the Army Ordnance Association, The Military 728
Medium Artillery Matériel (Wheeled), Status of ... 612
Meeting, A. O. A., Chemistry of Ordnance Displayed at the Sixth Annual ... 557
Meeting of the Army Ordnance Association, The Sixth Annual ... 487
Meeting, N. Y. District Defense Day ... 573
Meeting, The Sixth Annual (Editorials) ... 417, 531, 605
Methods Used by the Germans in Loading High Explosive Shell ... 838
Military Medal of the Army Ordnance Association, The 728
Mill Inspection of Steel, The ... 775
Mines (Naval Ordnance) ... 667
Mirrors, Aiming ... 534
Mission of the National Guard, Organization and ... 703
Mitchell, John J. (Biographical Sketch) ... 502
Mobile Artillery ... 566
Mobilization (National Guard) ... 706
Mobilization Plans ... 688
Modern Developments in Field Army Artilleries ... 537
Modern Ordnance ... 565
Modern Small Arms and Their Manufacturing Requirements, Part II ... 807
Modern Small Arms and Their Uses, Part I ... 713
Mortar, New 75-mm. ... 648
Motor Carriage, Mk. X, The 4.7-inch Gun ... 533
Mount, Model 1920 E, Mechanical Loader for 4.7-inch Antiaircraft Gun ... 469
Mount, Model 1923 E, 3-inch Antiaircraft Gun ... 468
Mount, Model 1920, Test of 14-inch Gun Railway ... 533
Mounts, Broadside Gun ... 667
Munitions in Modern Warfare, Preponderance of ... 511
Munitions Plant, America's Oldest ... 603
Munroe, Dr. Charles E. ... 506
Muscle Shoals Commission, The ... 834
Muscle Shoals, The Offers to Develop ... 419
National Defense Day, The Significance of ... 489
National Guard, Organization and Mission of the ... 703
National Guard, Present Problems of the ... 711
National Guard, Support the (Editorial) ... 744
National Guard, The ... 703
National Matches of 1924, The ... 474
National Matches, Ordnance at the ... 584
National Match Rifles ... 586
National Match Tests, Frankford Arsenal Ammunition Wins ... 817
National Match Types of Ammunition, Erosion Test of 615
National Rifle Matches, The ... 840
National Rifle Team Match, 1924, The ... 591
Naval Ammunition Depots ... 669
Naval Gun Factory ... 668
Naval Ordnance Plant, Baldwin, L. I., N. Y. ... 669
Navy Ordnance, Status of U. S. ... 666
Naval Powder Factory ... 669
Naval Proving Ground ... 669
Naval Torpedo Station, Newport, R. I. ... 669
New Constitution and By-Laws of the A. O. A. ... 526
New Corps Tractor, The ... 443
New Detonating Explosive—H. M. T. D. ... 463
New 5-Ton "Caterpillar" Tractor ... 673
Newly-Elected Officers of A. O. A. (Editorial) ... 671
New National Headquarters (Editorial) ... 605
New Navy 5-inch Gun ... 835
New 75-mm. Mortar ... 648
New 16-inch Guns Guard Metropolis ... 587
New York Advisory Board, The ... 649

New York District Defense Day Meeting ... 573
New York District Ordnance Reserve Officers, Lectures for ... 610
New York Ordnance Reserve Plants Designated ... 813
New York Post, A. O. A., Activities of ... 734
New York Post, A. O. A., General Summerall Urges Industrial Preparedness Before ... 773
1924 Steel Crossings ... 675
Nitrogen Theory of Erosion, The (Symposium on Gun Barrel Erosion) ... 800
Nolan to Reserve Officers, General ... 608
Offers to Develop Muscle Shoals, The ... 419
Old and New Theories in Gun Erosion (Symposium on Gun Barrel Erosion) ... 801
Old Hickory Fire, The ... 518
Optical Fire Control Instruments, The Standardization of ... 512
Optical Glass and Fire Control Instruments, A Symposium on ... 593
Optical Glass: A Strategic Raw Material ... 423
Optical Glass, World War Requirements of ... 425
Ordnance, Aircraft ... 667
Ordnance, Annual Report (Part I) of the Chief of ... 661
Ordnance at the National Matches ... 584
Ordnance Company, Rock Island Arsenal, The 33rd ... 658
Ordnance Demonstrations ... 579
Ordnance Department at Fort Sill, Extensive Salvage Operations of ... 727
Ordnance Department, Organization of the ... 692
Ordnance Development at Rock Island Arsenal, Current ... 825
Ordnance Displayed at the Sixth Annual Meeting, A. O. A., Chemistry of ... 557
Ordnance District Advisory Board, The Chicago ... 499
Ordnance District Advisory Board, Tentative Orders Allocated by New York ... 813
Ordnance District Chiefs and American Society of Mechanical Engineers, Cleveland Meetings of ... 436
Ordnance District Chiefs and A. S. M. E., The Cleveland Meetings of (Editorial) ... 417
Ordnance Districts Chiefs Discuss Procurement Plans ... 563
Ordnance Districts, Defense Day, 1924, in the ... 571
Ordnance Enlisted Specialist, The ... 812
Ordnance Material, Supply of ... 667
Ordnance, Modern ... 565
Ordnance Plant, Baldwin, L. I., N. Y., Naval ... 669
Ordnance Progress—1924 (Editorial) ... 670
Ordnance Reserve Officer Training, 1925 (Editorial) ... 826
Ordnance Reserve Officers, Lectures for New York District ... 610
Ordnance Reserve Officers Training Camps, 1924 ... 493
Ordnance Reserve Plants Designated, New York ... 813
Ordnance, The Role of Malleable Cast Iron in ... 735
Ordnance, Status of U. S. Navy ... 666
Ordnance Stores Control ... 431
Ordnance, Summary of the Investigation of Steels Used in German ... 468
Organization and Mission of the National Guard ... 703
Organization at Rock Island Arsenal, The ... 643
Organization of the Ordnance Department ... 692
Origin and Development of Weapons ... 459
Pacific Coast Torpedo Station, Keyport, Wash. ... 669
Pan-American Rifle Matches ... 590
Parachute Flare, Airways ... 467
Patents, Recent ... 482, 553, 627, 697, 770, 845
Personnel (Office Chief of Ordnance) ... 661
Personnel and Standardization ... 594
Philadelphia Ordnance District, Industrialists Make Aerial Survey of ... 806
Photography of Bullets in Flight ... 536
Picatinny Arsenal Notes ... 470, 536, 617, 674, 760, 838
Pistol, The Improved Colt .45 ... 470
Pittsburgh, Preparedness Plans Explained at ... 430
Point Detonating Fuzes, Prematures with Mk. IV and V ... 529
Powder ... 668
Powder, Action of Diphenylamine in Smokeless ... 674
Powder by the Using Services, Elimination of Use of Loose Black ... 467
Powder Factory, Naval ... 669
Powder, The Specific Heat of Smokeless ... 618
Powder Time Fuzes ... 467
Prematures With Mk. IV and V Point Detonating Fuzes ... 529
Preparedness, Industrial (Editorial) ... 417
Preparedness Plans Explained at Pittsburgh ... 430
Preponderance of Munitions in Modern Warfare ... 511
Present Problems of the National Guard ... 711
Prizes for Essays on Ordnance Training ... 829
Procurement Plans, Ordnance District Chiefs Discuss ... 563
Professional Notes ... 467, 533, 611, 672, 756, 834
Proposed New Constitution, The (Editorial) ... 417
Proving Ground, Naval ... 669
Purification of TNT, The ... 507
Pyrotechnics by Air Mail Service, Use of ... 612
Railway Artillery ... 569
Railway Mount, Model 1920, Test of 14-inch Gun ... 533
Raritan Arsenal Association, Annual Meeting of ... 742
Raw Material, Optical Class: A Strategic ... 423
Ready, Col. Edward S. (Obituary) ... 583
Reaffirming a Century Old Pledge ... 543
Recent Patents ... 482, 553, 627, 697, 770, 845
Recuperator Mechanisms to Field Gun Carriages, Application of ... 427
Regulations for the Officers' Reserve Corps ... 829
Relining 14-inch Guns ... 472
Repeal of Appropriation for Gun Elevation (Naval) ... 666
Reply to Major Wilhelm, A (Letter to the Editor) ... 764
Reserve Corps Notes ... 473, 545, 606, 683, 746, 828
Reserve Corps Strength ... 608
Reserve Officers, General Nolan to ... 608
Reserve Officers, Lectures for New York District ... 610
Reserve Officers Training Camps, 1924, Ordnance ... 493
Report of the Chief of Ordnance, Part I, Annual ... 661
Report of the Chief of Ordnance, Part II, Annual ... 729
Rifle, Calibre .22, Model 1922 MI, U. S. ... 761
Rifle Matches, Pan-American ... 590
Rifles, National Match ... 586
Rifle, Selfloading Shoulder ... 761
Rifle Team Match, 1924, The National ... 591
Rock Island Arsenal ... 631
Rock Island Arsenal (Editorial) ... 670
Rock Island Arsenal, Current Ordnance Development at ... 825
Rock Island Arsenal, Floor Inspection of Artillery at ... 655
Rock Island Arsenal, Manufacture of Equipment at ... 647
Rock Island Arsenal Notes ... 675
Rock Island Arsenal, The Organization at ... 643
Rock Island Arsenal, The 33rd Ordnance Company ... 658

Rock Island Camp, The ... 497
Rock Island, The Design Section at ... 637
Role of Malleable Cast Iron in Ordnance, The ... 735
Rotating Bands by the Germans, Use of Zinc ... 536
R. O. T. C. Notes ... 829
Salvage Operations of Ordnance Department at Fort Sill, Extensive ... 727
San Francisco District War Game, Spring Meeting, California Post, A. O. A., and ... 782
Schwab, Charles M. (Biographical Sketch) ... 653
Scott, Hon. Frank A., Appointed Chief, Cleveland Ordnance District ... 564
Seacoast Artillery ... 569
Secretary of War Emphasizes Importance of Army Industrial College ... 701
Selfloading Shoulder Rifle ... 761
Shell, Methods Used by the Germans in Loading High Explosive ... 838
Shrapnel, The Future Value of ... 525
Side Sliding Blocks, Extractors for Guns Having Drop Blocks and ... 677
Significance of National Defense Day, The ... 489
Sill, Extensive Salvage Operations of Ordnance Department at Fort ... 727
Silver Azide: An Initiator of Detonation ... 824
Sixth Annual Meeting, The (Editorial) ... 417, 531, 605
Sixth Annual Meeting of the Army Ordnance Association ... 487
Sixth Annual Meeting, A. O. A., Chemistry of Ordnance Displayed at the ... 557
Small Arms Abroad ... 741
Small Arms and Machine Guns ... 667
Small Arms and Their Manufacturing Requirements, Part II, Modern ... 807
Small Arms and Their Uses, Part I, Modern ... 713
Smokeless Powder, Action of Diphenylamine in ... 674
Smokeless Powder, The Specific Heat of ... 618
Specialist, The Ordnance Enlisted ... 812
Specifications ... 667
Specific Heat of Smokeless Powder, The ... 618
Springfield Armory Notes ... 761
Springfield Rifle, Manufacture of the Bolt of the ... 719
Spring Meeting, California Post, A. O. A., and San Francisco District War Game ... 782
Spring Training ... 828
Standardization of Optical Fire Control Instruments, The ... 512
Standardization, Personnel and ... 594
Standards in Fire Control Instruments ... 596
Status of Heavy Mobile Artillery (Wheeled) ... 758
Status of Medium Artillery Matériel (Wheeled) ... 612
Status of U. S. Navy Ordnance ... 666
Steel, Crystal Deformation in Cold-Worked ... 455
Steel Production, Improved Quality ... 785
Steels, Additional Tests Needed to Determine Value of Various (Symposium on Gun Barrel Erosion) ... 799
Steel, The Mill Inspection of ... 775
Steels Used in German Ordnance, Summary of the Investigation of ... 468
Stockett Line-Throwing Gun ... 673
Stores Control, Ordnance ... 431
Strategic Importance (Optical Glass) ... 481
Strategic Raw Material, Optical Glass: A ... 423
Student Officers in Repetitive Manufacture, Instruction of ... 761
Summary of the Investigation of Steels Used in German Ordnance ... 468
Summerall Urges Industrial Preparedness Before New York Post, A. O. A., General ... 773
Summer Training (Reserve Officers) ... 828
Superguns ... 569
Supply and Equipment (National Guard) ... 709
Supply of Ordnance Material ... 667
Support the National Guard (Editorial) ... 744
Symposium on Optical Glass and Fire Control Instruments, A ... 593
Synthetic Organic Chemical Industry, The Dye and ... 542
Tanks ... 566
Tanks, Italian ... 789
Targets, Battle Towing ... 667
Temperature on the Explosibility of Ammonium Nitrate, The Influence of ... 599
Tentative Orders Allocated by Ordnance District Advisory Board ... 813
Test Indorsed, Defense Day ... 577
Test, Industry Starts Defense ... 490
Test of Armor-Piercing Ammunition, Charpy ... 535
Test of 14-inch Gun Railway Mount, Model 1920 ... 533
Test of National Match Types of Ammunition, Erosion ... 615
Test of New Developments ... 585
Third Ammunition Train, Fort Sill, The ... 823
Thompson a Reserve Officer, Brig. Gen. ... 684
3-inch 15-Pdr. Gun with a Loose Liner, A ... 675
37-mm. Automatic Gun, Browning ... 422
37-mm. Gun, Model 1925 E ... 762
33rd Ordnance Company, Rock Island Arsenal, The ... 638
TNT and Amatol, Exudation from ... 611
TNT, The Purification of ... 507
Torpedoes ... 668
Torpedo Station, Keyport, Wash., Pacific Coast ... 669
Torpedo Station, Newport, R. I., Naval ... 669
Tracer Ammunition ... 536
Track-laying Vehicle (New Corps Tractor) General Specifications as a ... 445
Tractor, The New Corps ... 443
Tractor, New 5-Ton "Caterpillar" ... 673
Tractors ... 568
Training Camps, 1924, Ordnance Reserve Officers ... 493
Training Projects ... 661
Tripods, Development of ... 613
Tripp, Guy E. (Biographical Sketch) ... 653
Turret Installations ... 667
U. S. Chemical Warfare Service Association Formed ... 586
U. S. Rifle, Caliber .22, Model 1922 MI ... 761
University of California, Army Ordnance at the ... 597
Use of Pyrotechnics by Air Mail Service ... 612
Use of Zinc Rotating Bands by the Germans ... 536
A Vital Subject (Editorial) ... 605
Walsh, James L. (Biographical Sketch) ... 654
War Contracts ... 438
Warfare, Preponderance of Munitions in Modern ... 511
War Game, Spring Meeting, California Post, A. O. A., and San Francisco District ... 782
War, Limiting Factors of Our Army in ... 491
War Planning, Industrial ... 662
Warren Decorated by France, Colonel ... 474
War Reserves ... 662
Washington, Bombing the U. S. S. ... 756
Watervliet Arsenal Notes ... 472, 675, 762
Weapons, Origin and Development of ... 459

Whitehead, Lieut., Ordnance Reserve, and Brother Missing ... 755
Winchester Model 95 With Asiatic Expedition ... 837
Woodin, William H. (Biographical Sketch) ... 654
Wright, Major Lee Otis (Obituary) ... 740

AUTHORS' INDEX

Ames, T. L., and Terwilliger, A. L., "New 16-inch Guns Guard Metropolis" ... 587
Beckman, H. S., "The Elements of Firing Table Construction" ... 446
Bellinger, John B., Jr., "Defense Day, 1924, in the Ordnance Districts" ... 571
Bloch, Rear Adm. C. C., "Status of U. S. Navy Ordnance" ... 666
Booth, L. D., "Ordnance Stores Control" ... 431
Booton, J. G., "War Contracts" ... 438
Brayton, H. M., "Prematures With Mk. IV and V Point Detonating Fuzes" ... 529
Bullard, Maj. Gen. R. L., "The Significance of National Defense Day" ... 489
Campbell, Levin H., Jr., "The Design Section at Rock Island" ... 637
Davis, Tenney L., "Chemistry in War: An 18th Century Viewpoint" ... 783
de Sveshnikoff, W. W., "Carburization as a Factor in the Erosion of Machine Gun Barrels" ... 794
de Sveshnikoff, W. W., and Haring, H. E., "Electroplating Worn Machine Gun Barrels" ... 503
Domonoske, Arthur B., "Army Ordnance at the University of California" ... 597
Erwin, Henry, "Ordnance Reserve Officers' Training Camps, 1924" ... 493
Fay, Dr. Henry, "The Cause of the White Layer" (Symposium on Gun Barrel Erosion) ... 798
Forrest, A. C., "Floor Inspection of Artillery at Rock Island Arsenal" ... 655
Gardner, I. C., "The Standardization of Optical Fire Control Instruments" ... 512
Gary, Hon. Elbert H., "The New York Advisory Board" ... 649
Gathmann, Emil, "Improved Quality Steel Production" ... 785
Gorton, W. T., "Erosion of Machine Gun Barrels" (Symposium on Gun Barrel Erosion) ... 799
Hale, G. C., "German High Explosives in the World War" ... 523
Gray, J. C. (Symposium on "Carburization as a Factor in the Erosion of Machine Gun Barrels") ... 798
Haring, H. E., and de Sveshnikoff, W. W., "Electroplating Worn Machine Gun Barrels" ... 503
Harmon, Kenneth B., "Air Clarifiers" ... 737
Hatcher, J. S., "Ordnance at the National Matches" ... 584
Heigl, Fritz, "Italian Tanks" ... 789
Hoisington, Harry, "The Organization at Rock Island Arsenal" ... 643
Jenks, G. F., "Personnel and Standardization" ... 594
Jones, G. W., "The Influence of Temperature on the Explosibility of Ammonium Nitrate" ... 599
Kellner, Dr. Hermann, "Standards in Fire Control Instruments" ... 596
King, D. M., "Rock Island Arsenal" ... 631
Lazarus, Frank L., "Origin and Development of Weapons" ... 459
Lester, H. H., "Crystal Deformation in Cold-Worked Steel" ... 455
Maxwell, R. L., "Ordnance Demonstrations" ... 579
McFarland, Earl, "Manufacture of the Bolt of the Springfield Rifle" ... 719
McKnight, Jr., Charles, "The Mill Inspection of Steel" 775
Miles, F. H., Jr., "The Old Hickory Fire" ... 518
Muraour, H., "The Purification of TNT" ... 507
Olsen, Fred, "Concerning the Nature of Detonation" ... 515
Outland, George W., "The Rock Island Camp" ... 497
Outland, George W., "The 33rd Ordnance Company, Rock Island Arsenal" ... 658
Peters, Charles R., "Manufacture of Equipment at Rock Island Arsenal" ... 647
Reynolds, R. V., "Frankford Arsenal Ammunition Wins National Match Tests" ... 817
Rickards, Maj. Gen. George C., "The National Guard" 703
Rinkenbach, W. H., and Taylor, C. A., "H. M. T. D.—A New Detonating Explosive" ... 463
Rinkenbach, W. H., and Taylor, C. A., "Silver Azide: An Initiator of Detonation" ... 824
Rose, J. B., "Application of Recuperator Mechanisms to Field Gun Carriages" ... 427
Rutherford, H. K., "Optical Glass: A Strategic Raw Material" ... 423
Schneider, Herman, "Limiting Factors of Our Army in War" ... 491
Schwartz, Philip, "Accuracy Firing" ... 521
Struble, Geo. W. (Symposium on "Carburization as a Factor in the Erosion of Machine Gun Barrels") ... 798
Taylor, C. A., and Rinkenbach, W. H., "H. M. T. D.—A New Detonating Explosive" ... 463
Taylor, C. A., and Rinkenbach, W. H., "Silver Azide: An Initiator of Detonation" ... 824
Terwilliger, A. L., and Ames, T. L., "New 16-inch Guns Guard Metropolis" ... 587
Thompson, Brig. Gen. John T., "Small Arms Abroad" 741
Tilson, John Q., "Genealogy of the New England Gun Makers" ... 505
Tschappat, Wm. H. (Symposium on "Carburization as a Factor in the Erosion of Machine Gun Barrels") 797
Vanick, J. S., "Additional Tests Needed to Determine Value of Various Steels" (Symposium on Gun Barrel Erosion) ... 799
Wheeler, H. E., "The Nitrogen Theory of Erosion" (Symposium on Gun Barrel Erosion) ... 800
Wilhelm, G. P., "Browning 37-mm. Automatic Gun" ... 422
Wilhelm, G. P., "Modern Small Arms and Their Manufacturing Requirements, Part II" ... 807
Wilhelm, G. P., "Modern Small Arms and Their Uses, Part I" ... 713
Wilhelm, G. P., "The National Rifle Team Match, 1924" 591
Williams, Maj. Gen. C. C., "Annual Report of the Chief of Ordnance, Part I" ... 661
Williams, Maj. Gen. C. C., "Annual Report of the Chief of Ordnance, Part II" ... 729
Williams, Maj. Gen. C. C., "Modern Ordnance" ... 565
Williams, Maj. Gen. C. C., "The Offers to Develop Muscle Shoals" ... 419
Wright, F. E., "Adequate Stocks and Renewed Interest Needed" ... 593
Zimermann, Alfred G., "Old and New Theories in Gun Erosion" (Symposium on Gun Barrel Erosion) ... 801
Zimermann, Alfred G., "The Role of Malleable Cast Iron in Ordnance" ... 735